

**Follow-up Review of Ohio's Regulation and Monitoring of  
Longwall Mining Operations**

**FINAL REPORT**

**July 2004**

**Prepared by**

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## **Introduction:**

In April 2001, OSM released a final report titled: “Longwall Mining – Impacts, Implementation, Interaction of the Ohio Division of Mineral Resources Management, the Mining Industry, and Landowners.” This report addressed longwall mining and the processes the Division of Mineral Resources Management’s (DMRM) and the mining industry use to implement the Ohio program requirements and interact with affected property owners. The report provided five findings and recommendations regarding: permanent water supply replacement; cost of public water; documenting extent of impacts; repair and compensation for damage to structures; and communication, information, and understanding between DMRM, industry, and landowners.

More than three years have passed since that study was concluded. OSM and DMRM agreed in the EY 04 Performance Agreement that we should take another look at how DMRM and the mining industry have improved their processes of documenting and addressing properties impacted by longwall mining. During our last review, we had significant interaction with DMRM, mining companies, and landowners. This interaction provided an overall picture of the process and inter-relationship between DMRM, industry, and landowners. The focus of this review was on changes and clarifications to policies and implementation that DMRM has made since our last review.

## **Background:**

DMRM took several actions in response to OSM’s 2001 recommendations, including:

- Developed a pamphlet titled “Underground Mining Fact Sheet.” This pamphlet addresses several of the issues and questions regarding longwall mining and provides a source of basic information for the public.
- Committed to improve inspection processes, including development of a draft longwall panel inspection checklist.
- Conducted a training session for staff involved with underground mining to re-familiarize the staff with DMRM’s policies and requirements. This session confirmed that DMRM would carry out provisions of PPD Underground 90-2 with regard to documenting and tracking subsidence-related impacts. DMRM is planning another session.
- Sent a letter to the permittee, inquiring about the status of several water supplies impacted by mining of the Quarto #4 mine. The permittee responded in September 2003. DMRM and the permittee have met on occasion to discuss the status. The permittee has committed to completing a water resource evaluation by July 2004, followed by a plan for permanent replacement of all impacted water supplies. DMRM has not yet received the water resource evaluation.
- Required a permit applicant to change the alternative water supply information provided in a permit application to better address requirements regarding replacement of water supplies and DMRM is considering further changes as part of processing a permit renewal application.

- DMRM reported that impacted features on all properties known as impacted by longwall mining at the Southern Ohio Coal Company (SOCCO) mines have been repaired, replaced, or owners have been compensated.
- DMRM is currently working on revisions to its water supply policy in PPD Technical 93-1 that may formally clarify some of water supply issues OSM identified in its 2001 report, among others.

Three longwall mines in Ohio have closed since 1999. A new longwall mine operated by American Energy Corporation (AEC) opened in 2001 with longwall production beginning in 2002. There are now two longwall mines operating in Ohio, AEC's Century Mine and Ohio Valley Coal Corporation's (OVC) Powhatan Number 6 mine.

**Purpose and Objectives:**

The purpose of this review was to document changes DMRM has made since OSM's 2001 study and to determine how effective those changes are. The review also evaluated the administration and effectiveness of changes relative to compliance with Ohio's standards for longwall mining.

The review answered the following questions:

1. Is repair/compensation occurring in a reasonable and timely manner and in accordance with criteria established by law, rule, and policy (PPD Underground 90-2)?
2. Is DMRM tracking damage, monitoring repairs, working with landowners and the mining industry, and aware of the basic terms of agreements to help ensure that repair/compensation occurs as required?
3. Are landowners and mining companies entering into agreements that waive water supply replacement without a demonstration that water resources are available for future development?
4. Are additional operating and maintenance costs associated with an alternative permanent water supply replacement being properly considered?
5. Do water supply replacement plans in permits adequately address all program requirements?
6. What guidance has Ohio provided regarding water resources with a "legitimate use?"

**Methodology:**

OSM looked at recent mine maps for two of the mines that were active after January 2001, (OVC, AEC) to determine the properties that were subsequently undermined. For these mines and the closed mines (Quarto and SOCCO), we contacted DMRM for a list of properties undermined prior to January 2001, on which final resolution of impacts has not yet occurred.

OSM used the following process to collect information that helped answer Questions #1 through #4 of the Purpose and Objectives section of this outline. OSM decided to consider all of the affected properties that were undermined prior to October 2003 in the study. We picked October 2003 as a cut-off date because we decided that negotiations, monitoring, and repairs on properties impacted for less than six months would likely be in progress. It would be more likely that final resolution on properties impacted for more than six months would have occurred.

We used the current mine map and property listings in Attachment 31 of the permit applications to develop a list of those properties undermined after January 2001.

We provided the list of properties and features for the AEC and OVC mines to DMRM and requested information about the status of impacted structures and water supplies. The information that we requested is provided in Appendix 1. DMRM completed Appendix 1 and provided the status of each property and feature after meeting with the mining companies. Appendix 2 summarizes the information provided for the AEC and OVC mines. DMRM is updating the status of repairs/compensation on properties at the Quarto mine. DMRM indicated that all repairs/compensation on properties at the SOCCO mine have been completed.

The next portion of the methodology provides answers to Questions #5 and #6. We reviewed the water replacement plans in each of the permits with active mining (OVC and AEC) and compared them to DMRM's water replacement criteria. We asked DMRM if they had provided any guidance on "legitimate use" regarding water supplies. DMRM provided a copy of their current draft revised water replacement policy (PPD Technical 93-1). Revisions to this PPD are currently under consideration and may address some of the issues raised with respect to water replacement in OSM's 2001 oversight report.

#### **Discussion:**

##### ***1. Is repair/compensation occurring in a reasonable and timely manner and in accordance with criteria established by law, rule, and policy (PPD Underground 90-2)?***

OSM reported in its 2001 review that several agricultural water supplies had not been replaced several years after properties were undermined by the Quarto mine. The timing was contrary to commitments in the permit that permanent replacement would occur within 18 months. DMRM continues to work with Quarto to resolve these long-term water supply impacts. DMRM has corresponded in writing and periodically meets with Quarto representatives to keep moving toward resolution of these water supply issues. DMRM indicated the permittee has successfully replaced some of the water supplies and continues to work toward a permanent solution for the others.

DMRM is currently updating the status of repairs/compensation on properties at the Quarto mine. According to DMRM, Quarto committed to developing a water resource evaluation of the impacted properties that is to be completed this summer. Quarto

committed that a plan for providing permanent replacements would soon follow. During this period, the permittee has continued to provide public water as a temporary replacement. Although there appears to be progress toward final resolution, it has been at least five years and longer than ten years on some properties, since the supplies were impacted. The permit states that water supplies will be permanently replaced within 18 months. DMRM needs to increase its efforts with Quarto to reach final resolution.

With the exception mentioned above, DMRM and company information provided on properties mined since the last report indicate that repair and/or compensation is occurring within a reasonable time or negotiations are ongoing between the landowner and the company. Permanent replacement of some water supplies, both domestic and agricultural, on a few properties at AEC and OVC, has not yet been achieved. The 18-month criteria provided in the permits has either been exceeded or will be in the near future. (See Appendix 2 for details.) Temporary water has been provided in each case. However, DMRM should continue to work with mining companies to ensure that the permit standard is met. Alternatively, with adequate documentation, a revised permit standard might be supported to reflect individual circumstances where 18 months might be an unreasonable time to expect that permanent water supply replacement can be achieved.

During our last review, we found that most companies preferred to wait about six months after undermining until starting permanent repairs. Some landowners preferred to wait longer and some preferred that repairs begin immediately. Companies told us that they tried to work with individual landowners regarding scheduling of repairs. Negotiated repair schedules often provide more time for repairs to occur than generally expected. These conditions continue to exist and are an expected part of the process.

Negotiations between the company and landowners take longer and are more difficult in some cases than in others. In cases where negotiations are not moving along well, the company and/or the landowner will usually contact DMRM. DMRM has not yet had to intercede in the negotiation process to the point of making a determination on adequate compensation or repair. This is probably indicative that private negotiations are eventually reaching acceptable resolution.

***2. Is DMRM tracking damage, monitoring repairs, working with landowners and the mining industry, and aware of the basic terms of agreements to help ensure that repair/compensation occurs as required?***

OSM met with DMRM's South District Manager and three inspectors responsible for the two active longwall mines and one of the closed longwall mines. We discussed lists of properties and features undermined and the status of repair and/or compensation for damages to the features on these properties. The DMRM inspectors were knowledgeable about most of the properties and the status of repair/compensation based on their frequent interaction with the mining companies and several of the landowners. They provided examples of proactive meetings with landowners prior to undermining to explain the

process and address concerns. They agreed to use the lists of properties/features and to work with the mining companies to get a current status on each of them.

DMRM and a mining company representative completed Appendix 1 for each property undermined between January 2001 and October 2003. The questions in Appendix 1 were answered for 14 individual properties at the OVC mine and 13 at the AEC mine. Appendix 2 summarizes the results and provides the status of each property. Other properties were undermined during the review period, but had no identified water supplies or structures. The information provided by the DMRM inspectors showed that impacted features on all properties are in the process of being or have been repaired, owners compensated, or negotiations are ongoing between the company and the landowner.

DMRM received few formal complaints related to longwall mining for the two-year period of January 2002 – December 2003. DMRM's south district office logged nine formal subsidence-related complaints; two at the OVC mine, four at the SOCCO mine, and three at the Quarto mine.

There is still a general assumption that if complaints are not being filed, landowners and mine operators must be reaching amicable agreements on subsidence impacts. The fact that few complaints are being filed has some affect on DMRM's need to be aware of the status of all features on each property. Inspectors legitimately question the need to contact landowners who have not contacted DMRM. However, DMRM should verify the status of repair/compensation for impacted features on each property. One of the most important verifications needed on properties, regardless of whether landowners have contacted DMRM, is that restoration of land features and water supplies occurs as required. Restoration of water supplies with a legitimate use that existed prior to mining must occur and can be waived only under limited exceptions as described in our discussion of Question 3. Verification of water resource impacts and restoration may be partly accomplished through evaluating monitoring reports provided by the mining company and through DMRM's quarterly panel inspections.

DMRM has not yet developed a method for tracking and documenting impacts and outcomes on a property/feature basis other than through individual inspector's knowledge and their communication with mining companies and landowners. A pre-mining inventory of water sources and structures is included in the permit application as Attachment 31 and was the basis for OSM's developing Appendix 2. DMRM is considering ways to improve their monitoring and tracking of impacted features on individual properties. DMRM has acknowledged a need to continue to develop some method of property/feature tracking as time and staffing limitations allow.

***3. Are landowners and mining companies entering into agreements that waive water supply replacement without a demonstration that water resources are available for future development?***

OSM did not contact landowners or mining companies to review agreements or review actual conditions of pre- and post-mining water supplies as part of this review. However, DMRM has clarified its position that they will not accept landowners' waiver of water supply replacement that existed prior to mining without the mining company providing a demonstration that water resources are available for future development and use. Inspectors are aware of this position. Regardless of the terms of private agreements, DMRM should be verifying that each water supply, with a legitimate use existing before mining, is replaced or that the permittee provides the required written demonstrations discussed below.

Temporary replacement of impacted agricultural water supplies has generally been accomplished by the mining company paying the cost of public water until a permanent replacement is developed. DMRM has clarified its position that permanent replacement of impacted agricultural water supplies can be provided by public water only upon written concurrence by both the landowner and the mining company. In addition, the mining company must provide a written demonstration, with supporting data, that water resources with acceptable quality and quantity exist on the property for future development and use capable of supporting the land use.

In the event that redevelopment of comparable agricultural water resources on properties proves not feasible, the mining company must provide written documentation of this condition. They must also provide a reasonable level of compensation to the landowner for public water costs. DMRM has not yet had to intercede in private negotiations regarding reasonable compensation for the cost of public water as a permanent replacement for agricultural or domestic water supplies.

DMRM's draft revisions to their water supply replacement policy address these issues.

***4. Are additional operating and maintenance costs associated with an alternative permanent water supply replacement being properly considered?***

OSM did not contact landowners or mining companies to review agreements regarding compensation for damaged water supplies as part of this review. However, DMRM is clarifying its position and developing guidelines for establishing operating and maintenance costs for specific types of water supplies. These guidelines would apply if the landowner and mining company could not come to agreement. To date, DMRM has not had to make this determination. In most, if not all cases, mining companies and landowners have reached an agreement on a lump sum payment for cost of permanently replacing domestic water supplies. In many cases, this is accomplished by the mining company providing a connection to public water.

***5. Do water supply replacement plans in permits adequately address all program requirements?***

DMRM is currently re-evaluating water replacement plans in one of the active underground mine permits as part of the permit renewal process. The second permit is

due for renewal in the near future. The plans in the permits for the OVC and AEC active mines are nearly the same. Our review of the plans in the two active mining permits found them somewhat repetitive and possibly contradicting, making them subject to various interpretations. For example, excerpts from the replacement plans state:

“While it will be the policy of OVCC to replace a water source, payment of water bills will be the responsibility of the water user, unless otherwise agreed upon by OVCC and the water user...”

“It is OVCC intention to bear the cost of installation only of both interim and permanent replacement of developed water sources...”

“OVCC will pay for installation costs only for a temporary, alternate water supply...”

“Payment for domestic water will be the responsibility of the water user unless otherwise agreed upon by OVCC and the water user...”

“In situations where such an agreement is reached, OVCC will comply with the water replacement terms contained in the agreement. Such an agreement will satisfy, at a minimum, this permit and ORC 1513.162.”

“Should it become necessary to replace a domestic-agricultural water supply with county water, compensation will include payment of water bills.”

“BENNOC, INC. will not be responsible for non-developed sources or developed sources not being used at the time of undermining.” (Permit is now held by AEC, not BENNOC). (A similar statement, as applied to OVC, was removed from OVC’s D-360-12 permit.)

Some phrases infer that OVCC/AEC may not pay water bills and others say they will, subject to agreement between OVC and the owner. The requirements of ORC 1513.162, Federal rules, and the outcome of past litigation clearly provide requirements regarding temporary and permanent water supply replacement and compensation. Permits should clearly reflect those requirements. We encourage DMRM to continue working with OVC and AEC to clarify the alternative water supply information in both of their permits, especially as DMRM revises its current water replacement policy.

#### ***6. What guidance has Ohio provided regarding water resources with a “legitimate use?”***

Although not a major recommendation in its 2001 report, OSM suggested that DMRM provide some guidance on determining whether water supplies/sources are developed or have a legitimate use. This suggestion was based upon concerns that were voiced during our interviews during our last review. There seemed to be recurring questions whether springs were “developed” or had a legitimate agricultural or other use, and whether streams were legitimately considered agricultural water supplies if the area adjoining a stream was not used for pasture at the time of undermining. Ohio Revised Code (ORC) 1513.162(A) states:

“The operator of a coal mining operation shall replace the water supply of an owner of interest in real property who obtains all or part of his supply of water for

domestic, agricultural, industrial, or other legitimate use from an underground or surface source where the supply has been affected by contamination, diminution, or interruption proximately resulting from the coal mining operation....”

Ohio Administrative Code (OAC) 1501:13-9-04(P) repeats the statutory requirements without further clarification. DMRM’s current PPD Technical 93-1, Replacement of Water Supplies, also does not provide any further clarification regarding “other legitimate use” or what constitutes a water supply.

DMRM has not developed further guidance regarding this concern. OSM suggests that DMRM reconsider whether further guidance might be helpful to landowners, mining companies, and DMRM staff when questions arise regarding whether a water source might also be a water supply with a legitimate use.

### **Summary**

Based on our interaction with DMRM during this review, they have significantly increased their awareness of the properties and features impacted by longwall mining. They have improved their ongoing communication with the mining companies and landowners so that they are better aware of the status of impacts and repairs/compensation on most properties. Although DMRM has not yet developed a data collection system to better track impacts and repairs/compensation, individual inspectors appear to be documenting the status of each property in their own way. DMRM indicated they hope to continue working toward a more comprehensive approach to documenting impacts and status on individual properties in addition to the current individual approach. We encourage DMRM to develop a more comprehensive system using information readily available in permits and water supply monitoring data provided by the mining companies as a baseline.

DMRM is more proactive on longwall mining issues by meeting with some landowners prior to undermining to explain the program and obligations of the company and the landowner.

DMRM has taken a more active role by working with Quarto to resolve several long-standing permanent water supply replacement issues on several properties and working on updating the status of repairs/compensation on properties affected. Although there appears to be some progress toward final resolution, it has been at least five years and longer than ten years on some properties, since the supplies were impacted. DMRM should increase its efforts with Quarto to reach final resolution.

There are also a few water supplies that have not been permanently replaced within 18 months at the OVC and AEC mines. DMRM should closely evaluate all situations where permanent water supply replacements have not occurred within 18 months as required by the permits. DMRM should determine why the permittee has been unable to resolve the matter in the required time and formally document what action the permittee plans to take to resolve the situation. Adequate DMRM/permittee attention to these water supplies

should prevent the long-term situations that currently exist at the Quarto mine from developing at the other mines.

DMRM is currently working on clarifying its water supply replacement policy. As the revision process proceeds, we encourage them to consider providing additional guidance and definition of water supplies with a legitimate use. The current draft revised policy addresses operating and maintenance costs, limitations on public water as a permanent agricultural water supply replacement, limitations on waivers on installation of water delivery systems, and demonstrations to show that water resources are or are not available for future development. All of these matters should be addressed in the final version of the policy.

DMRM is currently evaluating the alternative water supply replacement provisions of a permit during the renewal process. We encourage DMRM to consider requesting revisions to the current permit language so it more clearly reflects the requirements of ORC 1513.162 and Ohio court decisions regarding water replacement. At a minimum, the replacement plans should reflect any final changes to the current DMRM water replacement policy, once the changes occur. Whatever changes are made to this permit should also be required of the other active longwall permit.

**DMRM Comments:**

DMRM's response to the draft report is provided as Appendix 3. Their comments suggested no changes to the draft report and committed to continued focus on policy and improving process in this program area.

**Appendix 1**

|  |   |   |    |  |                        |                |
|--|---|---|----|--|------------------------|----------------|
| <b>Mining Company:</b>   |   |   |    | <b>Permit:</b>   | <b>Page 1 of _____</b> | <b>2003-04</b> |
| <b>Property Name, ID #, and Sample #:</b>  |   |   |    | <b>Approximate date property was undermined:</b>   |                        |                |
| 1. Were dwellings on this property undermined?   | Y | N | NA | <b>If yes, # of dwellings:</b><br><b>Date of initial impact:</b>   | <b>Comments</b>        |                |
| 2. Have permanent repairs been completed to those dwellings?                                 | Y | N | NA | <b>If yes, when were they completed?</b>   |                        |                |
| 3. If no to #2, have permanent repairs been started?   | Y | N | NA | <b>If yes, when is completion expected?</b><br><br><b>If no, when are they expected to start?</b><br><br><b>Comments</b> |                        |                |
| 4. If permanent repairs have not occurred or will not occur, has the owner been compensated? | Y | N | NA | <b>If yes, when was compensation made?</b><br><br><b>If no, when is compensation expected?</b><br><br><b>Comments</b>    |                        |                |
| 5. Were structures, other than dwellings, undermined on this property?                       | Y | N | NA | <b>If yes, # of structures:</b>  |                        |                |
| 6. Have permanent repairs been completed to those structures?                                | Y | N | NA | <b>If yes, when were they completed?</b>   |                        |                |

| <b>Mining Company:</b>   |   | <b>Permit:</b> |    | <b>Page 2 of ____</b>  |  | <b>2003-04</b>  |  |
|--|---|----------------|----|--|--|-----------------|--|
| <b>Property Name &amp; ID:</b>   |   |                |    |  |  |                 |  |
| 7. If no to #6, have permanent repairs been started?   | Y | N              | NA | <b>If yes, when is completion expected?</b><br><br><b>If no, when are they expected to start?</b><br><br><b>Comments</b> |  |                 |  |
| 8. If permanent repairs have not occurred or will not occur, has the owner been compensated? | Y | N              | NA | <b>If yes, when was compensation made?</b><br><br><b>If no, when is compensation expected?</b><br><br><b>Comments</b>    |  |                 |  |
| 9. Were domestic water supplies impacted on this property?                                   | Y | N              | NA | <b>If yes, # and type of supplies impacted:</b>  | <b>If yes, # and type of temporary replacements:</b> | <b>Comments</b> |  |
|  |   |                |    | # of wells & ID#   | # by public water                                    |                 |  |
|  |   |                |    | # of springs & ID#   | # by installing tank                                 |                 |  |
|  |   |                |    | # of cisterns & ID#  | # by delivering water                                |                 |  |
|  |   |                |    | # of other & ID#   | # and type of other                                  |                 |  |

**Mining Company:**

**Permit:**

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**2003-04**

**Property Name & ID:**

|  |          |          |           |   |   |                        |
|--|----------|----------|-----------|---|---|------------------------|
| <p>10. Have all impacted domestic water supplies been permanently replaced on this property?</p> | <p>Y</p> | <p>N</p> | <p>NA</p> | <p><b>If yes, # and type of permanent replacement and date completed?</b><br/>                 # by public water<br/>                 # by well<br/>                 # by spring<br/>                 # &amp; type by other</p> | <p><b>If no, # and type of permanent replacements planned?</b><br/>                 # by public water<br/>                 # by well<br/>                 # by spring<br/>                 # &amp; type by other</p>              | <p><b>Comments</b></p> |
| <p>11. Were agricultural water supplies impacted on this property?</p>                           | <p>Y</p> | <p>N</p> | <p>NA</p> | <p><b>If yes, # of supplies impacted:</b><br/>                 # of springs &amp; ID#<br/>                 # of wells &amp; ID#<br/>                 # of streams &amp; ID#<br/>                 # of ponds &amp; ID#</p>       | <p><b>If yes, # and type of temporary replacements:</b><br/>                 # by public water<br/>                 # by installed tank<br/>                 # by delivering water<br/>                 # &amp; type by other</p> | <p><b>Comments</b></p> |

| Mining Company:   |   | Permit: |    | Page 4 of ____  |  | 2003-04         |  |
|---|---|---------|----|---|--|-----------------|--|
| Property Name & ID:   |   |         |    |   |  |                 |  |
| 12. Have all impacted agricultural supplies been permanently replaced on this property?   | Y | N       | NA | <b>If yes, # and type of permanent replacement and date completed?</b>  | <b>If no, # and type of permanent replacement planned?</b> | <b>Comments</b> |  |
|   |   |         |    | # of springs & ID#  | # by springs   |                 |  |
|   |   |         |    | # of wells & ID#  | # by wells   |                 |  |
|   |   |         |    | # of streams & ID#  | # by streams   |                 |  |
|   |   |         |    | # of ponds & ID#  | # by ponds   |                 |  |
|   |   |         |    | # replaced w public water as last resort  | # replaced w public water as last resort                   |                 |  |
| 13. If all impacted water supplies have not been permanently replaced on this property, has the owner waived replacement of water delivery system(s)? | Y | N       | NA | <b>If yes, explain how the waiver is documented.</b><br><br><b>If no, explain why the delivery system is not replaced and action DMRM is taking.</b><br><br><b>Comments</b> |  |                 |  |

**Mining Company:**

**Permit:**

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**2003-04**

**Property Name & ID:**

|   |   |   |    |  |
|---|---|---|----|--|
| 14. If yes to #13, has the permittee demonstrated that the water resources existing prior to mining are available for use if water delivery systems should be installed in the future?  | Y | N | NA | <p><b>If yes, explain how the permittee made this demonstration and DMRM's determination.</b></p> <p><b>If no, explain why the permittee has not made the required demonstration.</b></p> <p><b>Comments</b></p> |
| 15. If domestic and/or agricultural supplies were permanently replaced on this property with a different delivery system or source than existed prior to mining, has this owner been compensated for any additional costs of operating and maintaining the replacement water supply(s)? | Y | N | NA | <p><b>If yes, explain the extent and type of compensation.</b></p> <p><b>If no, explain why the owner has not been compensated.</b></p> <p><b>Comments</b></p>   |

**Mining Company:**

**Permit:**

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**2003-04**

**Property Name & ID:**

16. Any other comments on the status on this property? Use back if more space is needed.

## Appendix 2

### American Energy Corp., Permit D-425 (mined after 1/2001 and before 10/2003)

| Property Owner(s) | Attachment<br>31 ID#'s | Listed Water Resources & Structures  | Approximate<br>Mo/Yr of<br>Undermining                                 | Status   |
|-------------------|------------------------|--|--|--|
| AEC (Eikleberry)  | 2-9                    | DS-15, W-42, WL-43, U-10B, house, garage, barn, outbuildings   | 8-9/2002   | Company purchased property. Public water is available to the property.   |
| AEC (Hoover)      | 2-12                   | DS-81, DS-82, DW-146, P-25, house, 5 outbuildings  | 10-11/2002   | Company purchased property. No impact on water supplies.   |
| Bondy, CL         | 2-4                    | DW-24, house, barns, garage, outbuildings  | 4-5/2002<br>6-7/2002<br>10-11/2002<br>12/02-1/03<br>2-3/2003<br>1/2004 | One dwelling and three other structures impacted. Repair expected to begin in 2005. Domestic water supply impacted and temporarily replaced with water tank. <b>Permanent water supply replacement and structure repairs pending.</b>  |
| Boston, EP&ZI     | 2-11                   | DW-44, house   | 8/2003   | One dwelling impacted. Repairs expected to begin 5/2004. One domestic water supply impacted. Replaced with public water. Status of compensation for public water was not reported.   |
| Greer, R          | 1-13                   | stream   | 4-5/2002   | No impacts to structures or water supplies were reported.  |
| Lucas, EW&MS      | 2-25                   | D-26, DS-29, W-58, DW-59, DW-60, P-10, P-11, house, cabin, outbuilding, ruins  | 4-5/2003<br>6-7/2003   | One dwelling impacted and repairs completed. Domestic water supply impacted and temporarily replaced with water tank. <b>Permanent water supply replacement pending.</b>   |
| Lallathin, MD&CD  | 2-3                    | DS-26, DS-27, W-48, P-8, U-11A, house, outbuildings, barn  | 6-7/2002<br>8-9/2002   | One dwelling and two other structures impacted. Repairs expected to begin in the summer 2004. Domestic water supply impacted and temporarily replaced with public water. Status of compensation for public water was not reported. Two agricultural supplies impacted and temporarily replaced with public water. <b>Permanent water supply replacement and structure repairs pending.</b> |
| Raven Rocks, Inc  | 2-30                   | DS-9, DS-10, U-18, W-25, W-26, U-20, DS-12, DS-11, W-30, W-29, P-2, DW-38, DS-13, DS-19, D-18, D-17, U-17, Montana Danford structures, Rockwell structures, Smith structures, Balancing Rock | 8-9/2002<br>12/02-1/03<br>2-3/2003<br>4-5/2003<br>6-7/2003             | No impacts to structures or water supplies were reported.  |

|                |      |   |                        |   |
|----------------|------|---|------------------------|---|
|                |      |   | 8-12/2003              |   |
| Riley, C&P     | 2-16 | DS-14, Dw-40, P-6, house, barns, garage, outbuildings, pool | 3/2003                 | One dwelling and four other structures were impacted. Repairs are planned to begin in summer of 2004. Domestic water supply temporarily replaced with public water. <b>Permanent water supply replacement and structure repairs pending.</b>  |
| Rote, FC, Jr   | 2-5  | Stream, gas well  | 8-9/2002<br>10-11/2002 | No impacts to structures or water supplies were reported.   |
| Shriver, JW&JA | 2-10 | W-41, house, garage, outbuildings                           | 8/2002                 | One dwelling and two other structures impacted. Repair to dwelling to be completed summer of 2004. Repair to other structures completed summer 2003. Water supply temporarily replaced with public water. Well is expected to be drilled summer of 2004. <b>Permanent water supply replacement and structure repairs pending.</b> |
| Taylor, DW     | 1-17 | W-11, W-12, DW-13, stream, house, garage, outbuildings      | 12/2003                | One dwelling and two other structures impacted. Repairs planned for completion summer 2004. Domestic water supply impacted and temporarily replaced with water tank. Well is expected to be drilled summer of 2004. <b>Permanent water supply replacement and structure repairs pending.</b>                                      |
| White, DF      | 2-23 | D-25  | 4-5/2003               | No impacts reported to structures or water supplies.  |

**Ohio Valley Coal Company, Permit D-360-7 & -12 (mined after 1/2001 and before 10/2003)**

| <b>Property Owner(s)</b>   | <b>Attachment 31 ID#'s</b> | <b>Listed Water Resources &amp; Structures</b>   | <b>Approximate Mo/Yr of Undermining</b> | <b>Status</b>  |
|----------------------------|----------------------------|--|---|--|
| Barricklow, Robert         | 7-44, 7-47                 | W387, house, garage  | 10/15/2001                              | Repairs to dwelling completed fall of 2003, domestic water supply permanently replaced with public water 11/01, company currently paying water bill. <b>Final resolution of water bills pending.</b> |
| Belmont Electric           | 7-48                       | sub-station  | 3/25/2002                               | Company compensated owner for damage. Repairs completed shortly after undermining.   |
| Blake, Chad & Carmen       | 7-32, 7-59                 | DW376, DS270, W377, house, trailer, garage, outbuildings                                     | 12/30/2000                              | Company compensated owner in 8/2001 for damage to two dwellings and four other structures. Domestic water supplies replaced with public water. Company compensated owner for public water.           |
| Blake, Jack                | 7-60                       | W392, W393, house, trailer, summer kitchen, outbuildings, gas wells                          | 10/25/2000                              | Company compensated owner in 8/2001 for damage to two dwellings and one other structure. Domestic water supplies replaced with public water. Company compensated owner for public water.             |
| Blake, Jack L., Jr.        | 7-58                       | gas well   | 3-4/2001                                | Company compensated owner for plugging gas well. No other structures or water supplies impacted.   |
| Borough Co.                | 7-6, 7-7, 7-11             | U34-015, U34-007   | 3-4/2003                                | No structures or water supplies impacted.  |
| Coyne, Terrance & Margaret | 7-20, 7-22                 | U34-158, U34-159, U34-160  | 5/2001                                  | Company compensated owner in 9/2001 for damage to one dwelling and seven other structures. Domestic water supplies replaced with public water. Company compensated owner for public water.           |
| Coyne, Thomas & Joan       | 7-29                       | W394, W395, DS272, DS273, DS274, U34-173, P19, house, barn, garage (2), sheds (2), silos (2) | 5-6/2001                                | Company purchased property in 4/2001. Domestic water supply replaced with public water 2/2001.   |
| Grover, Roy & Mary         | 7-30                       | W379, house, outbuilding   | 12/2000                                 | Company purchased property in 3/2001. Domestic water supply replaced with public water 12/2000.  |
| Horvath, Frank & Wanda     | 7-42                       | W380   | 4/2001                                  | Company compensated owner for damage to one dwelling. Domestic water supplies replaced with public water. Company compensated owner for public water.  |
| Johnson, EM&T              | 7-43                       | W388, U35-035, P30   | 3-4/2002                                | No structures or water supplies impacted.  |
| Kemp, Jeffrey              | 7-52                       | W17, W18, trailers, outbuilding  | 7/2001                                  | Company repaired damage to one dwelling in 8/2003. Repairs were not required to other  |

|                         |                            |   |  |  |
|-------------------------|----------------------------|---|--|--|
|                         |                            |   |  | structures. Domestic water supplies replaced with public water in 7/2001. Company compensated owner for public water and loss of well.   |
| Kemp, Robert & Betty    | 7-51                       | U35-039   | 9-10/2001  | No structures or water supplies were impacted.   |
| Kindler, Doug           | 7-33, 7-5, 7-4, 7-34, 7-23 | W378, U34-172, U34-174, P17, P18, U34-166A, U34-167, U34-168, U34-170, U34-171, DS265, P2, P15, DS265, U34-171, DS267, U34-005, U34-006, house, barns, outbuilding, | 1-2/2001<br>5-6/2001<br>7-8/2001<br>11-12/2001<br>1-2/2002<br>1-2/2003 | Company compensated owner in 8/2001 for damage to one dwelling and two other structures. Domestic water supplies replaced with public water in 8/2001. Company compensated owner for public water. Four watering troughs were installed and connected to public water as temporary replacement for agricultural supplies. <b>Permanent water supply replacement pending.</b> |
| Mitchell, John          | 7-40                       | W391, U35-041, U35-045, P24, P25, house, barn, outbuilding, privy   | 2/2003   | No damage to structures or water supplies reported. Absentee landowner.  |
| Powell, Carlos & Susan. | 7-53                       | W404, modular, garage   | 3/2001   | Waiting on landowner estimates and to allow repairs to one dwelling and one other structure. Domestic water supplies replaced with public water in 8/2001 and water levels in original well have returned to pre-mining condition. Company compensated owner for public water from 5/2001 and 7/2003. <b>Repair to structures pending.</b>                                   |
| R&F Coal                | 7-37, 7-35                 | U35-037B, U35-037C, P20, P21, P22   | 5-6/2002   | No structures or water supplies impacted.  |
| Reese, J & T            | 7-3                        | DS265, U34-171  | 7-8/2002   | No structures or water supplies impacted.  |
| Simpson, F & S          | 7-50, 7-54, 7-62, 7-64,    | U35-38, W410, W411, U34-152, W415, wetland, house, barn, barn, outbuildings   | 3-4/2001<br>9-10/2002<br>11-12/2002                                    | Negotiations on-going. <b>Permanent water supply replacement and structure repairs pending.</b>  |
| Simpson, Shirley        | 7-65                       | W401, W412, U37-005, U34-153, house   | 5-6/2003   | Negotiations on-going. <b>Permanent water supply replacement and structure repairs pending.</b>  |
| Stanford, John D.       | 7-56                       | W386, trailers, outbuilding   | 3-4/2001<br>9-10/2001  | <b>DMRM didn't report status.</b>  |
| Thornburg, Dorothy      | 7-39, 7-36                 | U35-046, schoolhouse, U35-037C, P20   | 11-12/2001<br>5-6/2002   | No structures or water supplies impacted.  |
| Winland, Robert         | 7-21                       | U34-157, U34-151, U34-154, U34-158, ruins, gas well   | 11-12/2002   | Gas well plugged. No other structures or water supplies impacted.  |

### Appendix 3

Division of Mineral Resources Management  
*Michael L. Sponsler, Chief*  
1855 Fountain Square Court – Bldg. H3  
Columbus, OH 43224-1383  
Phone: (614) 265-6633 Fax: (614) 265-7998

July 22, 2004

George Rieger  
United States Department of the Interior  
Office of Surface Mining  
4605 Morse Road, Room 102  
Columbus OH 43230

Re: DMRM's Implementation of Longwall Mining Provisions - Draft Oversight Report

Dear Mr. Rieger:

DMRM has accomplished a great deal in this area and appreciate the assistance of your staff in participating in the process. The recent hiring of a new Mineral Resource Inspector in Cambridge with extensive mining experience should aid in our keeping "on top" of Longwall issues in the field. Continued focus on policy and process in field as well as including Longwall mining as a topic in staff meetings will continue to strengthen our approach to Longwall mining.

We will keep your office informed as to our progress with the industry relating to our efforts in finalizing the water supply replacement policy. We agree, that maintenance costs, limitations on waivers for installation of water delivery systems, limitations on public water as a permanent replacement for agricultural supply, and documentation that justifies that water supplies are or are not available for future development are important aspects of our draft policy. We will maintain a high priority in maintaining the current focus of the draft policy in our negotiations/communications with the industry.

Once the water supply replacement policy is in effect, we will coordinate with the permitting section to ensure that the water supply replacement plans in new permits as well as renewals meet the goals of O.R.C. 1513.162 and our policy. Although a great deal of progress has been made in documenting the impacts of Longwall mining and the resolution of several long standing permanent water supply replacement issues, we are still moving to strengthen these areas and will do so.

Sincerely,

\_\_\_\_\_  
signed  
Thomas G. Tugend, Deputy Chief  
Division of Mineral Resources Management

TGT/lc  
Cc: Mike Sponsler  
Scott Kell  
Dave Clark  
Rick Simmers  
Tom Hines